

**AMENDED CLAIM SET:**

1. – 5. (cancelled).

6. (previously presented) A photoresist resin comprising at least a constitutional repeating unit A containing a group capable of partially leaving by the action of an acid to thereby become soluble in an alkali; and a constitutional repeating unit B containing an alicyclic skeleton having a polar group,

wherein the resin

(i.) has a weight-average molecular weight of 3000 to 15000 and

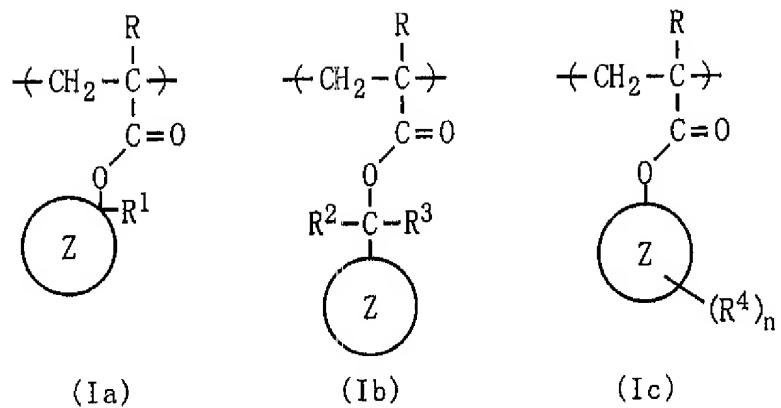
(ii.) has a molecular weight distribution ( $M_w/M_n$ , wherein  $M_w$  is weight-average molecular weight and  $M_n$  is number-average molecular weight) of from 1.1 to 3.5 and

(iii.) has a content of polymer fractions each having a molecular weight

exceeding 40000 of 4 percent by weight or less of the total resin.

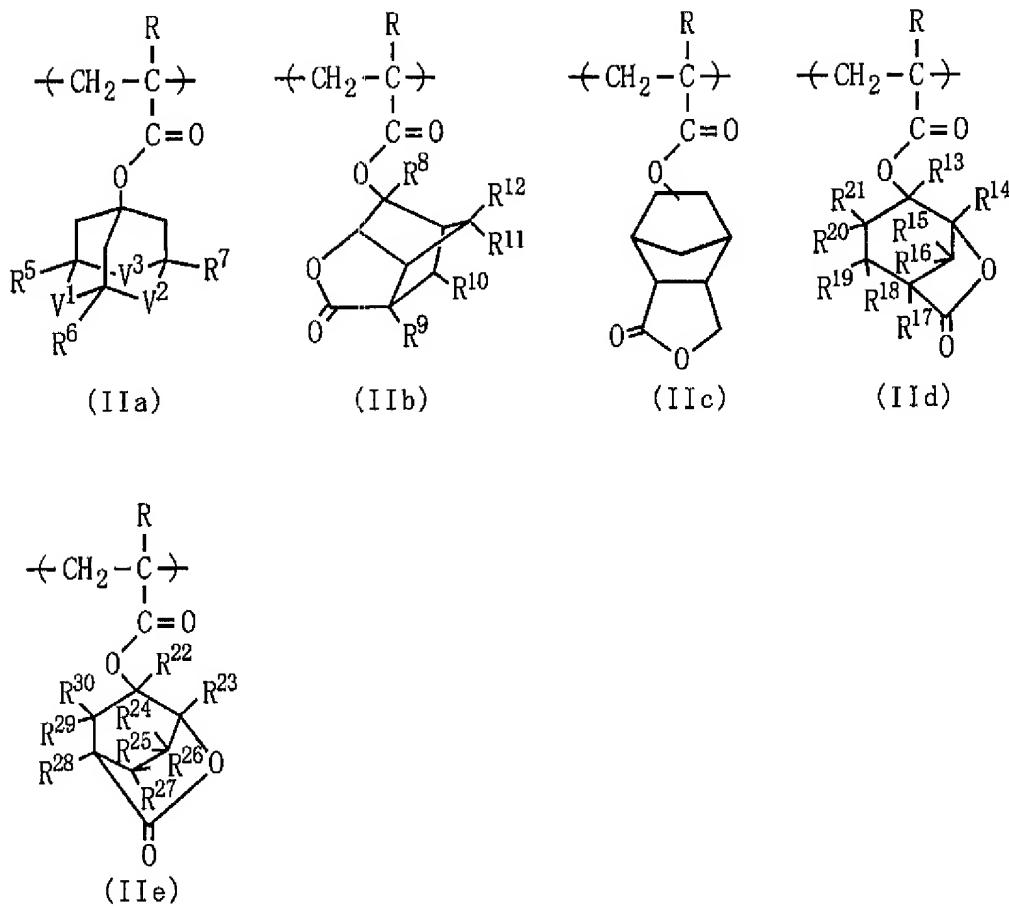
7. (previously presented) The photoresist resin of claim 6, wherein the weight-average molecular weight is from 5000 to 13000.

8. (new) The photoresist resin of claim 6, wherein the constitutional repeating unit A is at least one selected from constitutional repeating units of following Formulae (Ia), (Ib), and (Ic):



wherein Ring Z is an alicyclic hydrocarbon ring having six to twenty carbon atoms which may be substituted; R is hydrogen atom or an alkyl group having one to six carbon atoms; R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> may be the same as or different from one another and are each an alkyl group having one to six carbon atoms; R<sup>4</sup>'s are substituents combined with Ring Z, may be the same as or different from each other and are each oxo group, an alkyl group, a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group, wherein at least one of nR<sup>4</sup>'s is a -COOR<sup>a</sup> group, wherein R<sup>a</sup> is a tertiary hydrocarbon group which may be substituted, tetrahydrofuryl group, tetrahydropyranyl group or oxepanyl group; and n is an integer of 1 to 3.

9. (new) The photoresist resin of claim 6, wherein the constitutional repeating unit B is at least one selected from constitutional repeating units of following Formulae (IIa), (IIb), (IIc), (IId) and (IIe):



wherein R is hydrogen atom or an alkyl group having one to six carbon atoms; R<sup>5</sup>, R<sup>6</sup> and R<sup>7</sup> may be the same as or different from one another and are each hydrogen atom, an alkyl group, a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group; V<sup>1</sup>, V<sup>2</sup> and V<sup>3</sup> may be the same as or different from one another and are each -CH<sub>2</sub>-, -CO- or -COO-, wherein (i) at least one of V<sup>1</sup>, V<sup>2</sup> and V<sup>3</sup> is -CO- or -COO-, or (ii) at least one of R<sup>5</sup>, R<sup>6</sup> and R<sup>7</sup> is a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group; R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup>, R<sup>11</sup> and R<sup>12</sup> may be the same as or different from one another and are each hydrogen atom, an alkyl group, a hydroxyl

group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group; R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup>, R<sup>19</sup>, R<sup>20</sup> and R<sup>21</sup> may be the same as or different from one another and are each hydrogen atom, an alkyl group, a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group; and R<sup>22</sup>, R<sup>23</sup>, R<sup>24</sup>, R<sup>25</sup>, R<sup>26</sup>, R<sup>27</sup>, R<sup>28</sup>, R<sup>29</sup> and R<sup>30</sup> may be the same as or different from one another and are each hydrogen atom, an alkyl group, a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group.

10. (new) A photoresist resin composition, as a solution comprising the photoresist resin of claim 6 and a light-activatable acid generator in a solvent.

11. (new) A process for preparing a photoresist resin composition, comprising the step of dissolving the photoresist resin of claim 6 in a solvent.